

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An automatic administration instrument for medical use for injecting a drug solution filled in a syringe, ~~wherein said automatic administration instrument~~ comprising:

a body for housing the syringe and an injection needle;

a first motor for driving the syringe within said body in a direction toward the tip of the injection needle such that the injection needle protrudes from said body;

a second motor for operating the syringe to administer the drug solution;

a switch ~~switching means~~ provided on the body of the administration instrument is operated- said body, said switch being operated by pressing a part of the exterior of said the body against a body region of a patient to which the drug solution is to be administered,

wherein said switch activates said first motor such that the injection needle thereby operating a first driving means so that an injection needle housed in the body protrudes from the said body to perform needle insertion into said the body region, and thereafter, a second driving means for driving the syringe is operated- activates said second motor to administer the drug solution.

2. (Currently Amended) An automatic administration instrument as defined in claim 1, further comprising a detection means for detecting for medical use as defined in Claim 1 wherein, ~~after a detection means detects that administration of the drug solution is completed and/or that said the administration instrument body is removed from the body region, wherein the first motor the driving means is operated so that the injection needle that protrudes from the~~

body to be inserted in the body region is housed in the administration instrument body is retracted into said body after said detection means detects that administration of the drug solution is completed and/or that said body is removed from the body region.

3. (Currently Amended) An automatic administration instrument as defined in claim 1, ~~for medical use as defined in Claim 1~~ wherein a speed of inserting the injection needle or a speed of pulling out the injection needle is variable.

4. (Currently Amended) An automatic administration instrument as defined in claim 1, ~~for medical use as defined in Claim 1~~ wherein a speed at which the drug solution is administered by said the second motor driving means is variable.

5. (Currently Amended) An automatic administration instrument as defined in claim 1, further comprising:
an inner case that is slidably provided in an outer case of said body, said inner case being configured to attach to the injection needle and the syringe,

wherein said first motor drives the syringe by sliding said inner case in said outer case,
and

wherein said first motor is operated by said switch to automatically insert the injection needle into the body region of the patient by sliding said inner case so that the injection needle protrudes from said outer case.

for medical use for injecting a drug solution, said administration instrument being provided with an inner case that is slidably provided in an outer case of the body, an injection

~~needle that is attached to the inner case, a syringe that is replaceably attached to the inner case and is filled with a drug solution, a first driving means for sliding the inner case in the outer case, a second driving means that is coupled to the syringe to administer the drug solution filled in the syringe, and a switch means for driving the first and second driving means;~~

~~—wherein, when performing insertion of the injection needle, the first driving means is operated by the switch means to slide the inner case so that the injection needle protrudes from the outer case, thereby automatically inserting the needle into a body region of a patient to which the drug solution is to be administered.~~

6. (Currently Amended) An automatic administration instrument as defined in claim 5, wherein said inner case slides such that the injection needle protruding from said outer case is retracted into said outer case to automatically remove the injection needle. ~~for medical use as defined in Claim 5 wherein, when performing removal of the injection needle, the inner case is slid so that the injection needle protruding from the outer case is housed in the outer case, thereby automatically removing the injection needle.~~

7. (Currently Amended) An automatic administration instrument as defined in claim 5, wherein said switch is ~~for medical use as defined in Claim 5 further including a detection switch for detecting as to whether the administration instrument~~ whether said body contacts the body region to which the drug solution is to be administered.

8. (Currently Amended) An automatic administration instrument as defined in claim 7, ~~for medical use as defined in Claim 7~~ wherein insertion of the injection needle is enabled when

~~the~~said detection switch detects that ~~the~~said administration instrument contacts the body region to which the drug solution is to be administered.

9. (Currently Amended) An automatic administration instrument as defined in claim 8, ~~for medical use as defined in Claim 8~~ wherein administration of the drug solution is stopped when ~~the~~said detection switch detects during administration of the drug solution that ~~the~~said administration instrument does not contact the body region to which the drug solution is to be administered, ~~administered, during administration of the drug solution.~~

10. (Currently Amended) An automatic administration instrument as defined in claim 8, ~~wherein the injection needle is retracted into said body when said~~ for medical use as defined in Claim 8 wherein ~~the operation of housing the injection needle into the body is carried out when~~ the detection switch detects during insertion of the injection needle that the administration instrument does not contact the body region to which the drug solution is to be administered, ~~administered, during insertion of the injection needle.~~

11-14. (Cancelled)

15. (Currently Amended) An automatic administration instrument ~~for medical use~~ as defined in claim 1, wherein injection of a drug solution is not carried out when an injection needle is not attached to ~~the~~said body of ~~the~~said administration instrument.

16. (Currently Amended) An automatic administration instrument as defined in claim 2, ~~for~~
~~medical use as defined in Claim 2~~ wherein a speed of inserting the injection needle or a speed of
pulling out the injection needle is variable.

17. (Currently Amended) An automatic administration instrument as defined in claim 2, ~~for~~
~~medical use as defined in Claim 2~~ wherein a speed at which the drug solution is administered by
said second motor ~~the second driving means~~ is variable.

18-20. (Cancelled)

21. (New) An automatic administration instrument as defined in claim 1, further comprising:
a microprocessor which outputs instructions to said first motor and said second motor.

22. (New) An automatic administration instrument as defined in claim 1, further comprising:
a microprocessor which outputs instructions to said first motor and said second motor,
and
wherein said first motor rotates in a first direction to drive the syringe such that the
injection needle protrudes from said body and rotates in a second direction opposite to the first
direction to retract the injection needle into said body.

23. (New) An automatic administration instrument as defined in claim 1, further comprising:
a microprocessor which outputs instructions to said first motor and said second motor,

wherein said first motor rotates in a first direction to drive the syringe such that the injection needle protrudes from said body and rotates in a second direction opposite to the first direction to retract the injection needle into said body, and

wherein a speed of inserting the injection needle or a speed of pulling out the injection needle is variable.